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Anthony S. Roff
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Date

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I. Introduction

Female participation in military deployments and operations has increased significantly over the past decade. With the reduction in gender-specific barriers and the downsizing of military forces, this trend will continue. Both the number of women participants in military operations and the number of occupational specialties represented have increased. Consequently, preventive medicine interventions (vaccines, antimalarials, etc.) previously administered to all male "combat forces" need to be assessed for both genders. For example, the use of doxycycline for antimalarial prophylaxis reportedly increased the incidence of vaginal yeast infections experienced in Operation Desert Shield/Desert Storm (ODS/S). Additionally, the capabilities of medical facilities and personnel on site may need to be reevaluated. Changes in military medical planning doctrine should be based on problems identified by both after-action reports and information obtained from individuals directly participating in the operations.

This study was designed as a survey to assess the availability, accessibility, and adequacy of health care provided to USAF active duty women in theater during ODS/S. The survey questionnaire was developed to answer the following research questions: 1. What were the gender-unique health problems experienced by female ODS/S participants? 2. What were the modifiable causes of gender-unique health problems identified in female ODS/S participants? 3. What treatment (or nontreatment) was provided for female ODS/S participants' health problems? 4. What perceptions do female ODS/S participants have of the accessibility and adequacy of health care received in theater during ODS/S?

The study was designed as a collaboration between the military principal investigator (PI) at the USAF Office for Prevention and Health Services Assessment and civilian coinvestigators (CIs) at the University of Texas Health Science Center. The military PI had the responsibility to obtain the official Department of Defense (DOD) ODS/S Master File, perform sampling, and obtain mailing addresses and telephone numbers for potential study participants. Additionally, the PI has the responsibility for all data analysis once the data collection is complete. The civilian CIs had the responsibility for survey questionnaire development and administration of the survey instrument through telephone interviews and mailings.

Administration of historical questionnaires is an effective method of gathering information on significant life events. Casey et al.¹ found that 50-year-old adults could accurately recall events in early childhood and adolescence (height, weight, obesity, onset of menarche, year of maximal growth in height). Colditz et al.² found that nurses aged 30-55 years had accurate recall of year of menopause. Paganini-Hill and Chao³ emphasized the need to use specific wording (e.g., "myocardial infarction" instead of "heart attack") in questionnaires.

The CIs have elected to retain a professional telephone survey corporation to administer the instrument. Interviewers at this corporation use Computer Assisted Telephone Interviewing (CATI) to facilitate questionnaire administration and data collection. The use of trained knowledgeable telephone interviewers to facilitate questionnaire completion is expected to substantially enhance completeness of data, allow for clarification of technical terms, and increase collection of data in the "Additional Comments" section of the questionnaire.

II. Body

No results are available at this time as data collection is still under way. During the period 9 January 1995 through 1 August 1995 a considerable amount of work was accomplished. Some portions of the project have taken longer than anticipated to accomplish but the civilian CIs are expected to complete all work by 30 September 1995. The final report will be available by late CY95.

The military PI obtained an extract from the official DOD Desert Storm File, a database containing all active duty military personnel serving in theater during ODS/S, from the Defense Manpower Data Center. This extract contained all USAF personnel (male and female) who were deployed to this conflict from active duty.

Next, the PI obtained a random sample of 564 female personnel after stratifying by rank and occupational category. This stratification was done to increase representativeness, by minimizing the probability that the sample would be sharply skewed with respect to rank or occupational categories.

After obtaining the sample, the PI then collaborated with the Air Force Health Study staff at Brooks Air Force Base to obtain personnel data on as many of the sample women as possible. Data from personnel files included mailing addresses and in some cases telephone numbers. Using commercial telephone information, telephone numbers were obtained for the women with an available mailing address but whose records contained no telephone number.

Ultimately the PI obtained mailing addresses for 449 women and telephone numbers for 301. Letters of invitation to participate in the study were mailed to all those with addresses, but less than 100 of the addresses were accurate. Telephone contact was attempted with all those with telephone numbers, but less than 50% of the telephone numbers were accurate. The overwhelming majority of women contacted by mail or by phone have agreed to participate in the study. Those contacted by mail have each returned a completed copy of USAMRDC Form 60-R.

To date approximately 125 surveys have been completed by telephone interview or by mail. The women participating in the study have reportedly been enthusiastic and have expressed appreciation for the opportunity to express their thoughts regarding the health care received during deployment to ODS/S. Efforts are continuing to identify correct telephone numbers for all women in the sample. The contract telephone survey personnel will continue their work through 31 August 1995. The 125 completed telephone surveys represent approximately a 3% sample of the 4,997 Air Force women in the DOD Desert Storm File extract.

III. Conclusions

Since no data is currently available for analysis, no scientific inferences can be made at this time. However, with regard to study progress, considerable advances have been made toward the goal

of surveying approximately 150 female Air Force ODS/S veterans. Given that approximately 125 surveys have been completed at this time, the goal of 150 appears attainable. Major difficulties encountered to date have concerned the difficulty in obtaining accurate mailing addresses and telephone numbers for the women in the sample.

Origins of this difficulty appear to lie with 1) the large number of USAF women who have retired or separated from the Air Force since ODS/S combined with 2) the high degree of geographic mobility of both active duty and retired/separated military populations. These difficulties have been offset by the very high participation rate among women successfully contacted.

Efforts are continuing to obtain accurate contact information on as many of the women in the sample as possible.

IV. References

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